



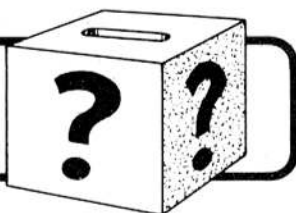
# NUCLEAR DIVISION NEWS

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 5 - No. 15

August 1, 1974

## QUESTION BOX



If you have questions on company policies, benefits, etc. or any other problems with which we might help, just let us know. Drop your inquiry to the Editor, Nuclear Division News. (Or telephone it to your plant news representative). You may or may not sign your name. It will not be used in the paper if you so desire.

Questions are referred to the proper authorities for accurate answers. Each query is given serious consideration for publication.

Answers may be given to employees personally if they so desire.

**QUESTION:** The prices in vending machines located in the plants recently increased again. A canned soft drink which was 15 cents several years ago is now 25 cents. The vending machine industry has a reputation for being enormously profitable, and their recent price increases certainly would support this claim. Does Union Carbide profit from contracts with vending machine companies? Many large companies pass vending machine profits on to employees in the form of social events, raffles, etc. If Union Carbide does profit, has any thought been given to sharing these profits with employees? The argument is made that without the large captive market (employees) there would be no vending machine profits.

**ANSWER:** The profit of the vending machine company servicing the Oak Ridge Nuclear Division's facilities is limited. Otherwise, vending machines are considered to be part of the overall food operation in the Nuclear Division. Profits and losses from the vending machines are therefore part of the overall profits and losses of the food operation. The continuing aim is to run the total food service operation at a break-even point. There has not been a profit in the overall food service in recent years.

**QUESTION:** In a recent article, you stated it was company regulation that guards were not allowed to have radios on post. What we would like to know is: Is it Company regulation or AEC regulation that permits private secretaries and other weekly and monthly personnel to have radios in their offices?

**ANSWER:** The regulations concerning the possession of radios on Company premises is specifically covered in the Plant Rules section, page 28, of the booklet, "You at Union Carbide." Plant Rule No. 5 states, "You are not permitted unauthorized cameras, radios... recorders, or transmitters on Company premises." Plant Rule No. 6 states, "You are not allowed to bring into the plant personal property other than that required in the performance of your work."

There are Muzak systems piped into some offices which play soft music continuously. This controlled reception does not have weather bulletins, news, etc., which would be distracting to anyone. It has been installed to alleviate boredom in some types of work. There are also radios in Shift Superintendents' Offices and special locations and announcements of general interest are sometimes made from these offices.

Private secretaries and other weekly and monthly personnel should not have personal radios in their offices. Such action would be in violation of the Company rules referred to above. This matter is being called to the attention of supervision in the event there has been, as your question infers, a laxity in enforcement of these rules.

**QUESTION:** In the face of growing public resentment and Congressional actions that are proposed to limit the use of Social Security numbers to those agencies required by law to do so, why is Carbide going ahead with its plan to use Social Security numbers on security badges?

(Continued on page 8)

## NUCLEAR DIVISION SAFETY SCOREBOARD

Time worked without a lost-time accident through July 25:

Paducah	161 Days	928,000 Man-Hours
ORGDP	141 Days	2,579,000 Man-Hours
ORNL	16 Days	273,000 Man-Hours
Y-12 Plant	408 Days	12,821,000 Man-Hours

## Committee tackles traffic problems head-on at ORGDP

The safety Steering Committee at the Oak Ridge Gaseous Diffusion Plant is vitally concerned with traffic and related problems there. On-going studies continue and improvements are constantly being made to alleviate some of the problems that have been plaguing ORGDPers for some time.

New parking spaces are being provided in many of the portal lots. Other improvements include the construction of portal shelters for car poolers, new markings and re-routing of traffic flows, and various other studies in progress to seek out problems and provide solutions.

### Improvements made

As pointed out in March in the Nuclear Division News, many improvements have been made already. These include additional lights, the marking of portals, additional signs, pedestrian rights-of-way provided and the improvement of parking facilities in all the lots. One new lot has been added.

Part of the problem has been brought on by increased population at ORGDP.

Studies at ORGDP and at other Nuclear Division installations have shown that parking violations and a fanatical

rush to leave the lot at quitting time are a very important part of the problem. (A recent check showed more than 500 illegally parked vehicles in the ORGDP lots.)

The personal cooperation of every vehicle operator is required to guarantee the other driver his rights.

### Cooperation is key

Employees are urged to: Enter and leave parking lots at the marked entrances and exits only.

Drive only in the provided traffic lanes and refrain from cutting across traffic lanes.

Follow the traffic flow pattern in the lot as shown by the direction arrows on the asphalt.

Park in the provided marked spaces and in accordance with the design intent of traffic flow. In other words, do not back into the parking space.

Discontinue the practice of parking in passenger pick-up lanes.

The cooperation of every employee, combined with the vast improvements in the works, should go a long way in alleviating the traffic problems at ORGDP.



**IAEA SYMPOSIUM** — Several Nuclear Division staff members attended a five-day symposium on "Dynamic Studies with Radioisotopes in Clinical Medicine and Research," which was held in Knoxville recently. Symposium officials and guests are from left; John H. Kane, USAEC, conference liaison officer; E. H. Belcher, IAEA, scientific secretary; Kyle Testerman, Mayor of Knoxville; R. A. Dudley, IAEA, scientific secretary; Gould Andrews, ORAU, conference chairman; James L. Liverman, USAEC, Washington; Robert J. Hart, manager, AEC-ORO; and R. Najar, IAEA, administrative secretary. The bottom photograph shows the translation booths where over 60 technical papers were simultaneously translated into Spanish, French, Russian and English by professional interpreters provided by the International Atomic Energy Agency. The interpretations were transmitted by wireless radio to members of the audience wearing special earphones who were able to dial the language of their choice.



# Stretching the food dollar their responsibility too

"We're expecting a few extra people for dinner tonight," reads a current national Union Carbide Corporation advertisement, "tonight the world will have 213,000 more mouths to feed than it had last night."

That many people won't show up for lunch today at the three Nuclear Division cafeterias, but around 3,600 will, and it's the job of three managers with many years' experience in food service to get those hungry mouths fed.

Time was in the old Manhattan Project days when the cafeterias operated on a 24-hour-a-day schedule, changing from breakfast, to luncheon, to dinner menus at the switch of steam trays. But as the pace slackened around the Oak Ridge area, and wartime schedules became memories, breakfast and dinner were eliminated.

Reva Baxter Suggs, manager of the Oak Ridge Gaseous Diffusion Plant's cafeteria, has almost 25 years' experience in food management. A native of Newport, she began club and restaurant management with her late husband, Bill D. Suggs, at various enterprises in the Morristown, Upper East Tennessee area. They later assumed responsibilities at the Smoky Mountain Golf and Country Club at Newport, and even later at Fairfield Glade, Crossville, where from 800 to 1,200 patrons ate three meals a day.

## Two evening meals

Mrs. Suggs recently moved to Oak Ridge with her daughter, Adena, (she has another married daughter Susan Wykle, living in Morristown) where she enjoys reading and collecting cookbooks.

In addition to the main cafeteria at Building K-1002, Mrs. Suggs has the responsibility for light evening meals at two different centers for second shifters. A light meal is served at Building 1007 from 5 to 6:45 p.m., and from 7 to 7:45 at Building K-1401.

One of the joys of her new job she states is the regularity. When you operate a business, serve three meals a day and

live on the premises as she has done so often, your life is not really your own.

## Busy ORNL manager

Howard E. Lee Jr., manager at the Oak Ridge National Laboratory's cafeteria, joined forces there in 1962 as a cafeteria helper. He had attended The University of Tennessee and had worked 18 months as a manager at McDonalds.

ORNLers favorite dish is a pineapple salad, according to Lee; and, of course, the homemade bread is always a favorite. Many Lab employees buy it and take it home.

A native of Washington, D.C., Lee grew up in Knoxville and lives in the Karns Community with his wife, the former Mary Compton and their two children, Lisa and Scotty.

The busy food man plays tennis in his spare time, is president of the Karns Recreation Commission, coordinating youth activities in the community, is president of the choir at Lincoln United Methodist Church, coaches a softball league, and tries to garden on the side.

## Serves special luncheons

"Gourmet? No, I still prefer hamburgers and french fries, and fried chicken," Lee smiles, "I'll leave the fancy foods for someone else."

In addition to duties at the main cafeteria, Lee manages the company store, and serves delicatessen-type food at the 4500-S canteen, where from 200 to 300 people eat daily.

Also, the ORNL cafeteria is the main hub for sit-down luncheons for visiting groups where private dining areas are available.

In addition, there are 14 coffee stations located throughout the complex.

## Variety of jobs

Y-12's cafeteria manager, too, brings many years of service into use at her present job. Rosemary Sluder, nee Reynolds, was born near the Mexican border in Southern Texas. She graduated from the University of Texas with a degree in

(Continued on page 8)



*HIGH PRICE SQUEEZE — Rosemary Sluder, manager of the Y-12 Plant's cafeteria, finds the high cost of food one of her biggest problems in feeding Y-12ers.*



*ENJOYS REGULAR HOURS — Reva B. Suggs, manager of the Oak Ridge Gaseous Diffusion Plant's cafeteria, enjoys the luxury of regular hours. After more than 25 years in area clubs and food service establishments, she states "pure enjoyment" of regular hours.*



*BY SALAD BAR — Howard E. Lee Jr., manager of the cafeteria at the Oak Ridge National Laboratory, finds a pineapple salad one of the most popular dishes at the Lab's eating establishment.*



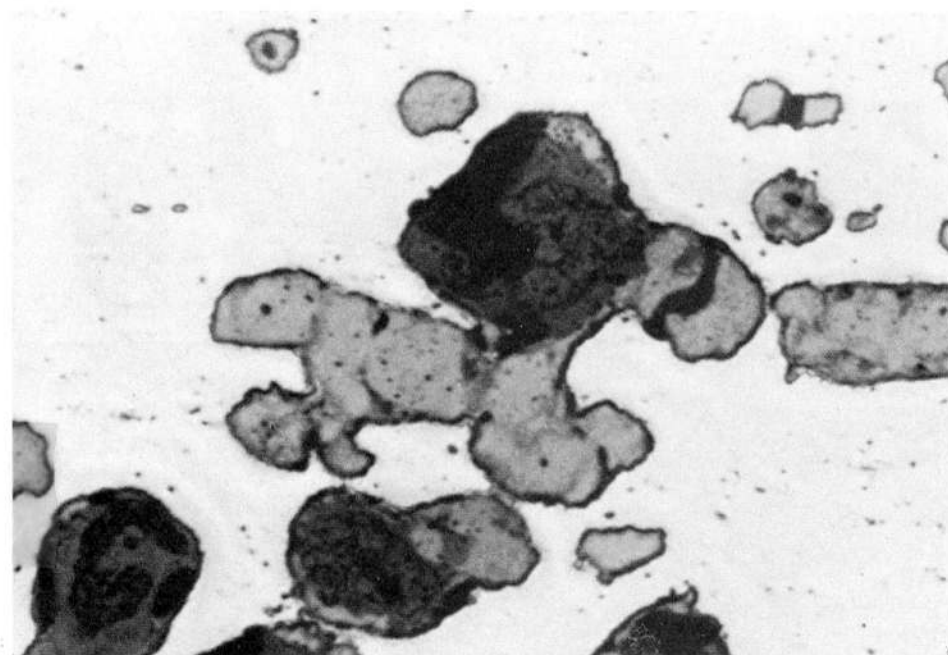
# Metallographic conference to be held in Gatlinburg

The international Metallographic Society will hold its seventh annual conference, August 4-7, in Gatlinburg. Metallography is the study and evaluation of the internal and surface structure of metals, alloys, ceramics and other materials by optical, electron, x-ray, microprobe and other sophisticated procedures and techniques.

A metallographic exhibit, co-sponsored by IMS and the American Society for Metals, is a major part of the conference. Three of the more interesting exhibits are shown below.



**SCEPTER** — This "scepter" is a single crystal of irradiated stainless steel doped with titanium and viewed at 75,000 magnification with an electron microscope.



**SNOOPY** — That sterling character "Snoopy" was found in the microstructure observed with an optical microscope at 500 magnification. Snoopy is a part of the microstructure of a nuclear reactor fuel plate of uranium oxide fuel dispersed in an aluminum matrix. A chemical reaction between the fuel and the aluminum matrix formed the figure. The dark areas are voids; the dark grey is some remaining fuel,  $U_3O_8$ ; the light grey was originally  $U_3O_8$ , but has reacted with the aluminum matrix.

## Division Retirees



Baker

Luckett

Charles G. Baker retired as a materials foreman in the Finance and Materials Division at ORNL. He had over 23 years of company service. Baker is married to the former Roxana Foreman. They have a son and a daughter, and reside at 330 Walden Street, Harriman.

Jesse M. Luckett was a welder in the Plant and Equipment Division. He retired with more than 26 years of company service. He and his wife, Hautie Jane, have two daughters. They reside at 126 Quincy Avenue, Oak Ridge.



Mantz

Ernest W. Mantz worked for almost 22 years as a machinist in the Plant and Equipment Division. He and Edna, his wife, live at Route 3, Clinton. They have one daughter.

## Next Issue

The next issue will be dated August 15. The deadline is August 7.

## UCC income, sales up for 2nd quarter

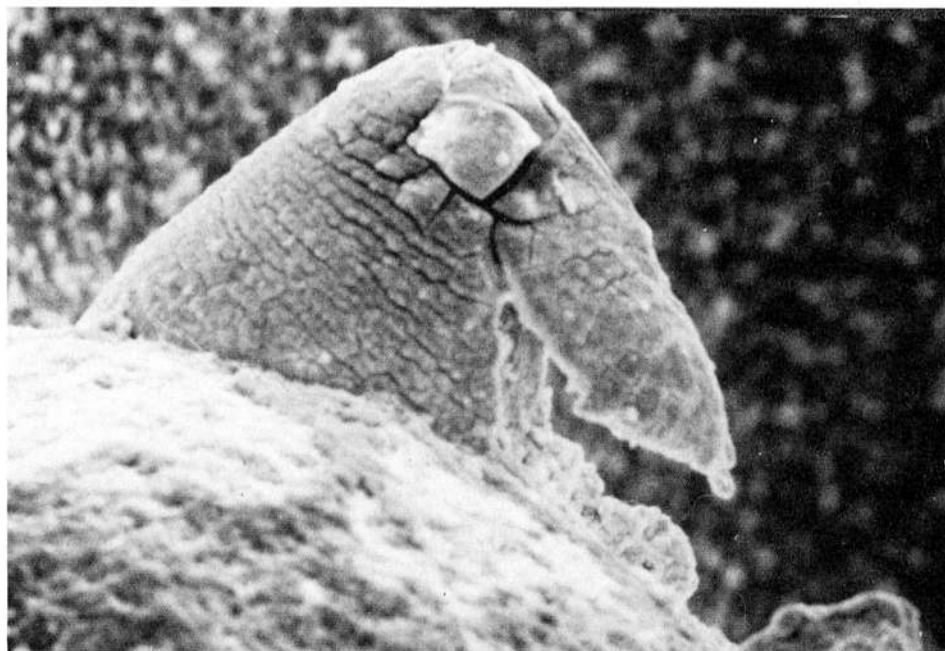
Final second-quarter results reported by Union Carbide show net income of \$134.1 million, or \$2.20 a share, 74 percent higher than the \$76.9 million, or \$1.27 a share, earned in the same period a year ago. Sales rose to \$1,328.5 million, 38 percent above the \$962.3 million achieved in the corresponding period a year ago.

For the first six months, net income was \$228.1 million, or \$3.74 a share. This is 59 percent higher than the 1973 first-half net income of \$143.2 million, or \$2.36 a share. Sales for the first half amounted to \$2,438.2 million, compared with \$1,867.7 million in the corresponding period of 1973, an increase of 31 percent.

In commenting on the results, F. Perry Wilson, chairman of the board, said that strong demand for the corporation's products has continued unabated. This — coupled with higher selling prices, adequate supplies of most raw materials, and good plant operations — was responsible for the substantial increase in both sales and earnings.

Sales gains during the second quarter, Wilson said, were strong in all major product lines. Domestic sales grew by 32 percent, and international sales by 51 percent, compared with the second quarter of 1973. It was noted, however, that the 1974 figures include sales of Bakelite Xylonite Limited, a plastics manufacturer in the United Kingdom, which became a wholly owned subsidiary in July, 1973. Had sales of this company been consolidated last year, the second quarter increase in total reported sales over 1973 would have been 33 percent, and in international sales 34 percent.

Union Carbide has seen only isolated instances of slackening in demand for its products, both at home and abroad, and that he expects demand to exceed the corporation's ability to supply during the remainder of 1974. Continued growth in capacity is vital if the corporation is to meet the needs of its customers and provide more job opportunities. Although Union Carbide's profitability has already improved markedly, still greater earnings gains will be necessary if the corporation is to justify expansion in the face of much higher construction costs.



**MONSTER** — This "monster" from the deep is a scanning electron micrograph of a uranium oxide on a pyrolytic-carbon coating at 500 magnification. Reaction between the two components has caused the oxide particles to crack and form the mouth of the monster.





**ORGDP ENGINEERS CERTIFIED** — Included among recently certified professional engineers were these men from the Oak Ridge Gaseous Diffusion Plant. From left are Andrew H. Fowler, Karl O. Johnsson, Robert A. Jones, Idus T. Littleton, Nicholas J. Tronolone, Kent A. Williams and Richard E. Ziegler. James L. Glandon is not pictured.



**CERTIFIED Y-12 ENGINEERS** — Employees recently certified as professional engineers from Y-12 include, from left, Joseph P. Callahan, Harold A. Fell, Gary M. Henderson, Curtis G. Holmes, Shields O. Lewis, John W. McCormick and Edward T. Stickle. Walter E. Gary was not present when the photograph was made.



**ORNL ENGINEERS** — Oak Ridge National Laboratory saw eight engineers receive professional certification. From left are Albert G. Grindell, Robert M. Hill, Elbert F. Margierat, Frank L. Peishel, James D. Rylander and Clyde H. Odom. Howard E. Cochran and William T. McDuffie Jr., are not included in the photograph.

## Division Retirees

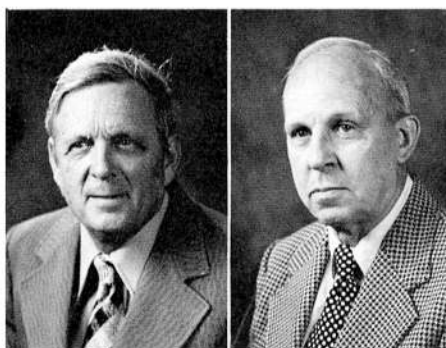
A total of 10 Y-12 veterans entered retirement status today, marking a total of 239 years of Union Carbide service!

James E. Bledsoe, tool grinding, came to Y-12 in 1946. He lives at Route 36, Chota Road, Concord.

Madison G. Cook, Development Division, joined the Y-12 Plant in 1944. He presently lives at 4409 Coster Road, Knoxville.

Edward C. Hightower, who joined Union Carbide in 1951, is in Y-12's general shops. He lives at 117 La Salle Road, Oak Ridge.

Theodore R. Jordan, buildings, grounds and maintenance shops, lives at 306 North Dunlap, Rockwood. He has been in Y-12 since 1947.



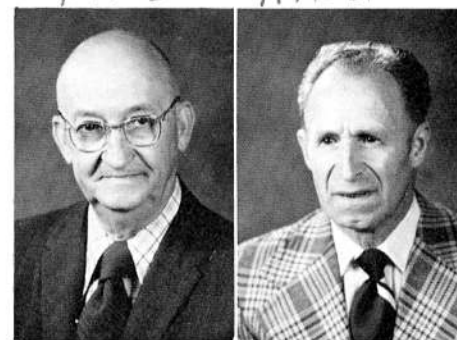
Bledsoe

Cook

L. C. Manley, building services department, lives at 236 South Fisk Avenue, Oak Ridge. He joined Union Carbide in 1951.

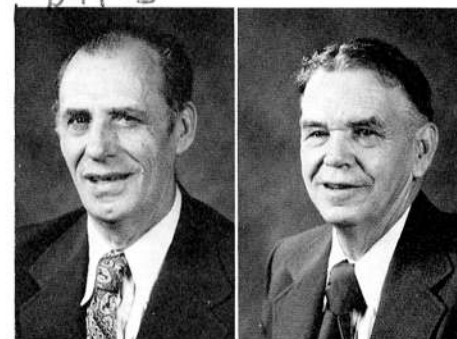
Halstead Meadows Sr., lives at 136 Maryville Circle, Oak Ridge. He joined Union Carbide in 1951, and was in A wing shops at the time of his retirement.

Joseph H. Milligan, alpha 5 processing, joined the Y-12 Plant in 1951. He lives at 8105 River Drive, Oak Ridge.



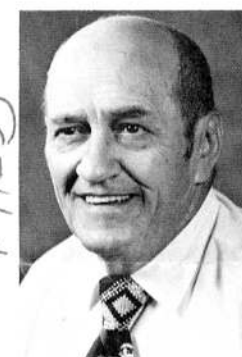
Hightower

Milligan



Muerth

Phillips



Shank

William J. Muerth, beta 4 forming, joined Union Carbide in 1956. He lives at 536 Margrave Street, Harriman.

Richard S. Phillips, stores department, came to Y-12 in 1947. He lives at Route 5, Clinton.

Robert D. Shank, electrical and electronics, came to Y-12 in 1952. He resides at 139 West Arrowwood Road, Oak Ridge.



Taylor

Vaughn

Fred G. Taylor, a 29-year veteran in the Fabrication and Maintenance Division at the Oak Ridge Gaseous Diffusion Plant, retires at the end of August. He lives at 219 Woodlawn Dr., Kingston.

Hurcil B. Vaughn, a 28-year veteran, who worked in finance and budget department, retired from ORGDP at the end of July. He lives at 4051 Sutherland Avenue, Knoxville.

The weakest among us has a fight, however seemingly trivial, which is peculiar to him and which worthily used will be a gift also to his race... John Ruskin

## Division engineers get certifications

At a recent combined meeting of the Oak Ridge and Knoxville chapters of the Tennessee Society of Professional Engineers, twenty-four local men and one woman were presented certificates of registration after having been accepted by the Tennessee State Board of Architectural and Engineering Examiners as qualified professional engineers. They are now fully licensed to offer their professional services to the people of Tennessee. The State requirements for licensing include demonstrated competence in a specific engineering field through written examination and documented experience.

The certificates were presented by Thomas J. Rentenbach, chief executive officer of the Rentenbach Engineering Company and well-known local business and civic leader. Mr. Rentenbach addressed the new registrants and Society members on the "Meaning of Professionalism" and included many anecdotes from his long experience as a practicing engineer. Rentenbach came to this area with the U. S. Corps of Engineers in the old Manhattan Engineering Project days and founded the Rentenbach Engineering Company here in 1946. His company is currently constructing the new Museum of Atomic Energy building on Tulane Avenue in Oak Ridge.



## Dunn appoints Boegly to reclamation board

William J. Boegly Jr., an environmental engineer in the Environmental Sciences Division at ORNL, has been appointed to a three-year term on the Board of Reclamation Review by Gov. Winfield Dunn.

The Board was created by a 1972 Public Act known as "The Tennessee Surface Mining Law." The purpose of this Act, in part, is to provide for the regulation of surface mining and the reclamation of lands affected by such operations.



Boegly

The Board of Reclamation Review consists of five members: the Commissioner of the Department of Public Health; two citizens from the public at large, who have no financial interest in the mining industry nor in any directly related business; and two representatives of the mining industry.

Boegly will serve as chairman of the Board. He received the Ph.D. degree from Purdue University, and came to work at ORNL in 1956.

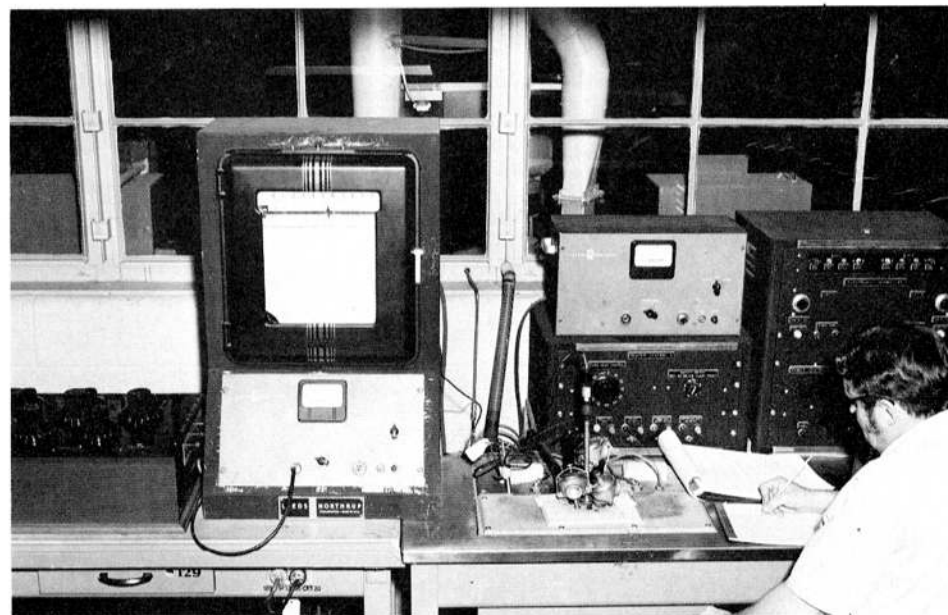
Boegly and his family reside at 3433 Ironwood Road in Knoxville.



### ORNL

CAR POOL MEMBERS from Norwood, Pleasant Ridge area of Knoxville to either portal, 8 a.m. shift. R. F. Long, plant phone 3-6971 or Knoxville 688-4847.

CAR POOL members from Waddell, West Outer or Pennsylvania Avenue areas, Oak Ridge, to East or North Portal, 8:15 a.m. shift. Tom Burnett, plant phone 3-6939, home phone 483-1975; or Dick Reed, 3-1801 or 483-3458.



**COMPRESSOR EFFICIENCY** — The efficiency of a compressor is determined from performance data collected while the machine is test-run in the Paducah Plant's test loop. The skill of instrument mechanic John W. Stearns and the equipment certified by the National Bureau of Standards play an important role in Paducah's quality assurance program.

## Savings Plan—Personal Investment Account

Recent unit values:

	Fixed Income Fund	UCC Stock	Equity Investment Fund
March 74	\$10.4402	\$37.7558	\$8.6079
April 74	10.5058	39.1736	8.1387
May 74	10.5729	41.0354	7.9920
June 74	10.6401	41.8363	7.7286

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 7-3/4% for 1974. Union Carbide stock values are the average cost of stock purchases during the month plus brokerage charges. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. Dividing the total value by the number of units in the fund establishes the month's unit value - and the price at which new units are added that month.

## COMPANY Service

20 25 30

### Y-12 PLANT 30 YEARS

William K. Forrester, Engineering Division; John L. Howard Jr., casting department; Arthur A. Pierce, guard department; Charles L. Lively, guard department; Archie P. Hooker, research services; Mattye B. May, chemical services; William T. Bradshaw, buildings, grounds and maintenance shops; Verne B. Gritzner, alpha 5 processing; John L. Householder, dimensional inspection; and Ernest R. Watkins, mechanical engineering.

### 25 YEARS

Raymond C. Whitehead.

### 20 YEARS

Cary A. Stanaland, Jonathan B. Peters, Charles W. Wampler, Roy P. Russell, Arthur C. Neeley, Don H. Friar, George G. Bittner, Ralph E. Hackworth, Bradley Napier Jr., Kenneth E. Tilley, Lawrence G. Losh, Billie E. Rowland, J. E. Cheek, Clarence E. Tilley, Paul Peterson, J. B. Boles, William R. Harvey, Edward C. Pate, Barnum W. Hensley, Winston C. Coffey, Joseph D. Roseler and James C. Taylor.

### GENERAL STAFF 30 YEARS

Rayman V. Rinehart, ORGDP management services; Marigrace W. Kirstowsky, executive offices; Lonnie L. Anthony Jr., ORGDP computing applications; Nelson H. Van Wie, ORNL computing applications; and Chris S. Day, ORNL computing applications.

### ORGDP 30 YEARS

Willie G. Smith, mechanical services department; Terry H. Robbins, cascade coordinators; Abner C. Jordan, U-235 separation department; Luther H. Bailey Jr., cascade maintenance department; Joseph E. Bradshaw, administrative services; Robert E. McMillan, chemical operations administration; George E. Bullock, guard department; Henry E. Walters, U-235 separation department; Joseph R. Collins, mechanical services department; Herbert C. Spain, cascade maintenance department; Marion A. Fletcher, plant electricity distribution department; Eva E. Elmore, maintenance engineering department; Glen H. Shannon, building maintenance department; Joseph S. Adcock, chemical and technical maintenance department; Thomas W. Sanders, fabrication shop department; Gascal Jackson, U-235 separation department; Andres de la Garza, Operations Analysis Division; Claude A. Millsap, power and utilities maintenance; John A. Smith, Engineering Division; Browder E. Heidle, instrument fabrication department; Wadie Z. Spence, operations planning department; and Richard L. Poteet, cascade coordinators.

### 25 YEARS

Herbert H. Young.

### PADUCAH 30 YEARS

Bruce E. McDougal, health physics; Dwight L. Trentham, analytical laboratory; Alvin M. Tuholsky, Plant Superintendent Division; and Abner C. Farthing, Fabrication and Maintenance Division.

### ORNL 30 YEARS

Hester Davidson, Plant and Equipment; Charles D. Moak, Physics; Wallace Davis Jr., Chemical Technology; Richard D. Simpson, Finance and Materials; Willie L. Ratledge, Operations; Edward G. Bohlmann, Chemistry; and Robert B. Briggs, Directors.

### 25 YEARS

James S. Johnson Jr., Billy P. Phillips, William L. Marshall Jr., Paul S. White, John T. Walker and Edwin T. Loy.

### 20 YEARS

John I. Federer, Golburn R. Whitaker, Lawrence G. Lasher, Harold E. Fraker, R. C. Bryant, James F. Newsome, June L. Zachary, Phil H. Hayes, Stanley I. Auerbach, Maudean W. Shanks, Lawton H. Smith and Obil B. Bridges.

## Mary King is named ORGDP interviewer



Mary G. King

Mary G. King has been promoted to employment interviewer at the Oak Ridge Gaseous Diffusion Plant, as announced by Joseph J. Vogt, Industrial Relations superintendent.

Mrs. King joined ORGDP in 1955, and worked first in employment. She has also worked in the Technical Division, Operations Analysis, and most recently in the Computing Technology Center. Before joining Union Carbide she was with Graybar Electric and Bryant and Trimble, in Knoxville.

In 1973, Mrs. King passed examinations as a Certified Professional Secretary. She is a graduate of Halls High School and Knoxville Business College.

She lives with her husband, Wayne, a 23-year veteran in ORNL's Instrumentation and Controls Division, at 7737 Wid-decomb Road, Powell. They have a son, Stephen, attending Powell High School.

### HIGH POWERED RIFLE LEAGUE

Jack Huff, Y-12, won the fifth match of the All Carbide High Powered Rifle League with a 478 out of 500. Marty Weston, ORNL, was second with a 483; and Don Liplinger, ORNL, was third with a 467.

## NUCLEAR DIVISION NEWS



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NUCLEAR DIVISION

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— Member —

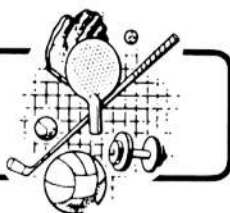
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# RECREATIONOTES



## SOFTBALL LEAGUES

The mighty Snakes bit the dust recently in the Atomic League, and the Rats lost another big one in the Nuclear League. Standings follow:

### ATOMIC LEAGUE

Team	W	L
Snakes	15	1
Ecology	11	6
Gashouse Gang	11	6
Red Barons	10	6
Supersonics	10	7
Streakers	7	8
Y-12 Sox's no. 2	2	13

### NUCLEAR LEAGUE

Rats	17	2
Raiders III	15	3
Computes	14	3
Over-The-Hill Gang	13	4
Avengers	10	7
The Losers	6	7
Bio-Rejects	7	9
Al's Pals	6	8
Bombers	7	10
Hornets	5	11
Artie's Army	3	15

## MELTON HILL GOLF LEAGUE

Mundt-Hummel wrenched a full-point win from Parker-Tiller to assume the lead in the Melton Hill Golf League, only two points ahead of the Alvey-Wright duo, who took a four-point win from Gill-Ramey.

## HOLE-IN-ONE

ORNL's Leo Caldwell zeroed in on hole number 17 - a par three, 175 yarder, at the Oak Ridge Country Club back in July. It was his first hole-in-one. He used a number five wood.

## FAMILY BOWLING LEAGUE

The Oops team still dominates the Carbide Family Mixed League, five points ahead of the Stokers. Jim Steele and Del Duway paced men recently, and Tillie Plaza paced women, with a 206 scratch game.

## SOUTHWEST POINT GOLF

Lay-Creswell and Crawford-Ooten are tied for the top rung in the latest standings at Southwest Point, as Carbide golfers dig in at the lakeside greens. Strunk-Duff moved up to within striking distance of the top with a big win.

## WOMEN GOLF LEAGUES

Women employees in the Nuclear Division who are interested in playing golf in league play next summer are urged to contact the Recreation Department, extension 3-5833. If enough interest is shown, leagues will be formed.

## WOMEN'S BOWLING

A meeting of the ORGDP Women's Bowling League will be held in the nursery of Ark Lanes, Oak Ridge, at 7 p.m., August 13. Anyone interested in bowling in this league should try to attend, or contact Maxine Gunter, extension 3-4286, or Marilyn Canterbury, 3-3010.

## SOUTH HILLS GOLF LEAGUE

Final standings in the South Hills Golf League put Cozart-Graham ahead of the pack with a comfortable margin.

### Final Standings

Team	W	L
Cozart-Graham	51	15
Wright-Bryant	44	22
Stafford-Madewell	42	24
Burrus-McGinnis	41	25
Blankenship-Hutson	41	25
Sise-Boyd	33	33
Henderson-Nicely	33	33
Pitt-DeBakker	33	33
Davis-Long	30	36
Bennett-Jones	25	41
Pappas-Waldrop	23	43

## SOUTH HILLS J GOLF

Smith-Collins paced the final half of the J Shift South Hills Golf League, and faced the winners of the first half last weekend at the Oak Ridge course.

# Folk dancing

Whether you are an experienced dancer wanting to brush up on your "schottische" and your "yemenite," or an interested bystander who has always wondered what folk dancing is all about, you will want to attend the annual Beginners' Class in International Folk Dancing whose first session meets Wednesday, August 7, 8 p.m., in the Social Room of the Civic Center. Sponsored by The Oak Ridge Folk Dancers, the eight-week course will conclude on September 25. The two-hour weekly sessions are designed to appeal not only to the novice but to all students of folk culture and will emphasize the teaching of basic steps common to many countries together with the names and variations by which they are known in the differing national groups. Turkish, Israeli, and Greek dances will be among the many ethnic dances taught by experienced dancers from this area. Both couples and singles are welcome.

Opening the course will be Dr. Bernard Kaiman, psychologist on the staff of Mountain Home Veterans' Hospital, who teaches a college-credit course in folk dancing at East Tennessee State University in Johnson City. Dr. Kaiman is well-known in this area as the originator and director of "Octoberfest," the popular annual folk dance event held each fall in Crossville, which each year features an instructor of international renown. Among these have been such outstanding leaders as Vyts Beliajus, Andor Czompo and, in 1973, Bora Ozkok.

For information call Shirli Strehlow, 135 Hillside Road; Ruth Young, 227 W. Fairview Road; or Charles Klabunde, 219 E. Vanderbilt Drive.



**CARBIDE ACTORS** — Nuclear Division connected persons involved in "Old Smoky" are seen before a recent performance. In the front row, from left, are Jeff Parrott, Missy Moles, Norris Parrott, Debra Embleton and Paul Norris. In the back are Jenny and Bill Moles, Janice and Dale Huff, Judy and George Rice, Jo Anne Wallace, George and David Johnstone.

# Several Nuclear Division thespians act in outdoor drama 'Old Smoky'

If you've seen "Old Smoky" at Jacksboro this summer, you are not startled by the presence of so many Carbiders and members of their families. Dancers, actors and other active people in the cast include Y-12's Norris Parrot, ORGDP's Debra Embleton, Y-12's George Rice, ORNL's George Johnstone and ORGDP's Bill Moles. Jo Anne Wallace, whose father J. A. Wallace, works in ORNL's Plant and Equipment Division, also appears in the cast.

The unique outdoor drama is staged Thursday, Friday and Saturday at 7:30 p.m., at the Eagle Bluff Theater near Jacksboro, exit 32, off I-75.

Written by Earl Hobson Smith, who authored "Trail of the Lonesome Pine," "Little Shepherd of Kingdom Come," "Stephen Foster," and "The Long Way Home," "Old Smoky" is a tale of mountain excitement.

There's a great deal of "clogging"

going on, and several of the Carbiders are in there doing their bit for local culture.

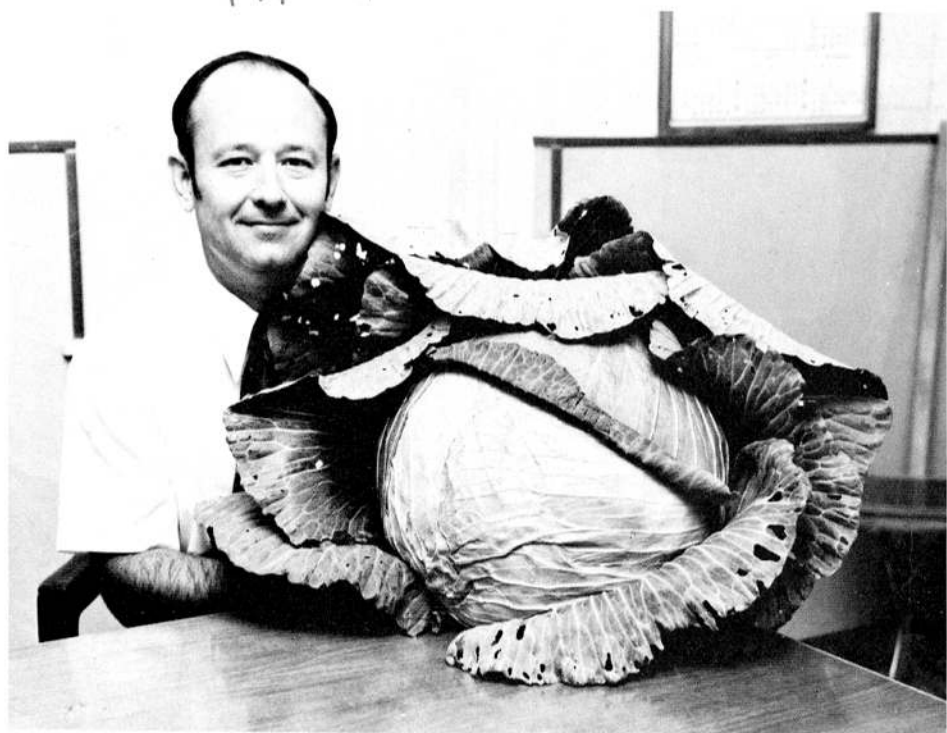
Cast members all agree that the drama is fun for the audience as well as the players.

## CARBIDE CAMERA CLUB

The Carbide Camera Club will meet Tuesday, August 13, at 7:30 p.m., in Room D-213 in Cheyenne Hall. There will be demonstrations of mounting photographic prints on mat-board including the use of dry mounting tissue and a mounting press. The technique of "spotting" to cover up flaws in prints will also be shown.

August competition for members will be black and white as well as color prints of nature subjects, plant and animal.

The public is invited to all Camera Club meetings. Additional information on the club may be obtained from John Blankenship, extension 3-3533.



**THE BIG HEAD** — Homer Moss, Y-12's Safety Department, grew this giant cabbage head in his backyard garden in Oak Ridge. The monster cabbage weighed in excess of 26 pounds.

## PATENTS

Granted

To William S. Pappas, ORGDP, for "Method for Monitoring an Aqueous Stream for the Presence of Fluorocarbons."

To Louis O. Gilpatrick, ORNL, for "Synthesis of Sodium Hydroxytrifluoroborate."



# The Medicine Chest

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning their health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, or call the news editor in your plant, and give him your question on the telephone.)

By T. A. Lincoln, M.D.

QUESTION: "I read in the *Reader's Digest* that some breast-fed babies who are potentially allergic to cow's milk can become sensitized to it if their mothers drink large amounts of milk. Is this really possible? If so, what is the mechanism that explains how this happens?"

ANSWER: My allergist consultant advises me that *Reader's Digest* often oversimplifies many complex problems. Milk that is drunk is digested in the stomach and intestine, where it is broken down to simple compounds, absorbed, and then transported to the liver, where it is further metabolized. The infant also breaks down its mother's milk quite effectively. Material such as penicillin, certain drugs, some allergens, for example, grass breakdown products, are not broken down completely and may therefore appear in milk. He doubts if the mother's drinking milk has anything to do with the infant developing a milk allergy. More likely the infant inherited a tendency to allergy from either or both the father and mother and milk allergy is one of the first signs of hypersensitivity.



QUESTION: "As one who had a proctoscopic exam in the X-10 Dispensary, was discovered to harbor a polyp (which was upon removal diagnosed as malignant) and for the last couple of years have had the proctoscopic exam by a private physician and also colon x-ray every year, I would appreciate your professional opinion of the CEA test."

ANSWER: "CEA" stands for carcino-embryonic antigen and was initially thought to be valuable as a diagnostic test for colon and rectal cancer. As more sensitive tests were developed, it was soon found that this test is positive in many conditions. It has been found in patients with other cancers, for example in the pancreas, lung and bladder. It is found in cirrhosis of the liver, pancreatitis, bronchitis and emphysema. In December, 1973, a study of heavy smokers was reported which associated heavy smoking and the CEA in the serum. The authors found that smokers of 15 or more cigarettes per day were far more likely to have a positive CEA test than nonsmokers.

Unfortunately, this test appears to be going the route of most blood cancer tests - one of disappointment. It is used after surgery for colon cancer to determine whether the surgery probably removed all the tumor. Serial tests are then performed to help detect any recurrence. When the test is performed on a normal

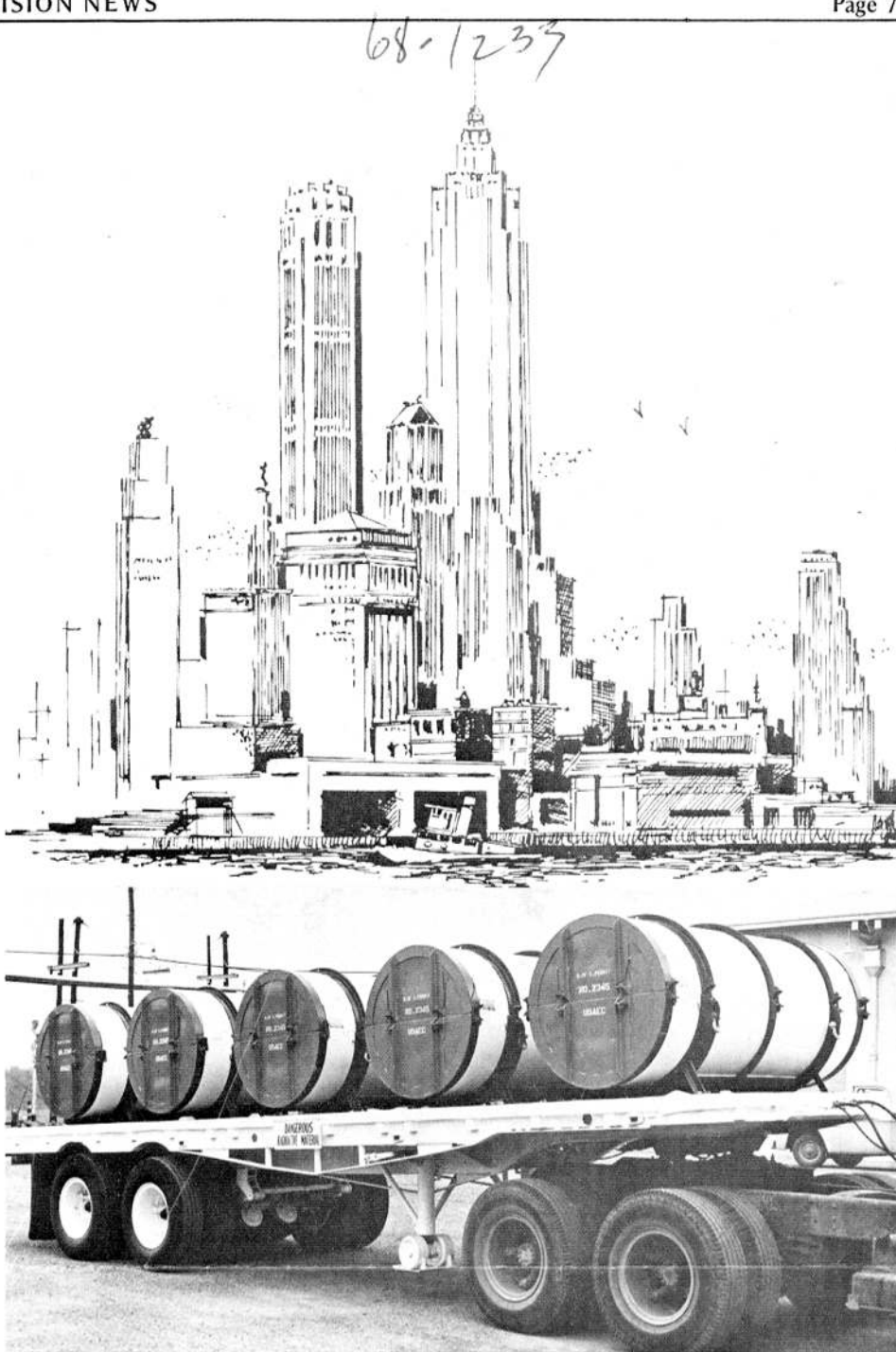
person, a strongly positive test certainly arouses suspicion and calls for a careful evaluation. The percentage of false positives using presently available sensitive tests is so high, it is probably not suitable as a routine screening test unless one decides, ahead of time, only to investigate strong reactors. Most physicians are reluctant to assume this responsibility.

QUESTION: "Could you please describe the degree of recovery (and time scale) of lung tissue and associated structures in a person who has given up cigarette smoking after 15 years. Assume the ex-smoker's status as each of the following: a. No overt respiratory problem; b. Mild chronic cough and/or shortness of breath; c. Obvious respiratory difficulties."

ANSWER: A number of studies have been done on the incidence of lung cancer in smokers, non-smokers and ex-smokers. The death rate from lung cancer is about 10 to 15 times higher in men who have smoked 20 or more cigarettes per day for 20 or more years than those who have never smoked. The death rate begins dropping about one year after quitting smoking and by 10 years it is almost back to the same level as in those who never smoked. Here, however, those who have smoked the most cigarettes the longest, usually over 20 years, cannot always expect to return to the non-smoking cancer risk level. Sputum cytology studies on smokers who show mild degenerative changes, often revert to normal in six months or a year after stopping smoking. Those with severe degenerative changes are far less likely to return to normal.

Individuals who have only a mild bronchitis often clear completely when they stop smoking. Those who have sufficiently severe chronic bronchitis to cause chronic obstructive pulmonary disease with impairment of pulmonary function are unlikely to improve greatly. They are like patients with emphysema. The damage done is done and cannot be repaired. The most that can be hoped for is to preserve as much of the remaining functioning lung tissue as possible.

Persons who have no obvious respiratory trouble related to their smoking are naive if they think their lungs are not being damaged. The effect may be less obvious, but it is there. It is amazing how many cases of emphysema and even chronic bronchitis don't think they have any significant symptoms until they get short of breath with minimal exertion. Before that time they believe their "hack" is insignificant or their mild shortness of breath is due only to their smoking or lack of exercise.



**ELECTRICAL NEEDS** — A single truckload of enriched U-235, like this shipment from the Oak Ridge Gaseous Diffusion Plant, can supply the total electrical power needs for a city of 200,000 people for an entire year.

## AEC temporarily suspends long - term contracts

This action was taken so the AEC can complete a review of the relationship of requested contracts to available capacity.

The uranium enrichment services criteria, under which the AEC contracts to provide enriching services, do not permit the Commission to contract beyond its available production capability. The capability of the AEC's three enrichment plants to provide fuel requirements to reactors depends on a number of factors,

including plutonium recycle and operating tails assay.

Contracts have already been signed for enriching services to sustain approximately 273,000 megawatts of commercial nuclear power.

The Atomic Energy Commission has announced it has suspended temporarily the signing of long-term contracts to enrich uranium for use as fuel in nuclear power plants.



**EYE SAFETY THEME** — The September theme for the Paducah Plant's safety committee is announced as "eye safety." Planning the Plant's activities are, from left, Marvin Sheffler, Pat Kerr, Chairman H. Dale Bewley, Elaine Bradley and Mary Nelson. Not pictured are Jim Grisham, C. O. Hayes and Keith Bryant.



## Hart and Poston elected officers of national HPS



Hart

Poston

Two members of ORNL's Health Physics Division have been elected to office in the national organization of the Health Physics Society. James C. Hart, chief of the education and information section, will serve as president; John W. Poston, chief of the medical physics and internal dosimetry section, will be secretary.

A primary duty of the president is to keep abreast of development in the field of radiation protection and to guide the society in the formulation of constructive activities. The secretary is responsible for maintaining the society's official records.

The society's primary objective is to develop the scientific knowledge and practical means necessary for protecting man and his environment from the harmful effects of radiation. At the same time, the society encourages the optimum utilization of radiation for the benefit of mankind.

Hart, a native of West Virginia, graduated from West Virginia Wesleyan College. He began his career in health physics at the University of Chicago's Manhattan Engineering District's Metallurgical Project. Hart, who joined the staff at ORNL in 1943, took a leave of absence to earn his law degree from The University of Tennessee in 1962.

Poston is a native of Knoxville. He received the B. S. degree in mathematics from Lynchburg College, and the M. S. and Ph.D. degrees in nuclear engineering from Georgia Institute of Technology. He came to work at ORNL in 1965.

## Fox son is awarded academic scholarship

Timothy P. Fox, a recent graduate of Oliver Springs High School, has been awarded an academic scholarship at Tennessee Technological University.

Fox graduated with an average of 4.0 and was valedictorian of his class. He was awarded a science medal and was selected as the school's most intellectual senior.

He is attending classes at The University of Tennessee

for the summer and will enter TTU this fall to major in optometry.

Fox is the son of Paul Fox, in ORGDP's Maintenance Division, formerly in ORNL's Plant and Equipment Division.



Fox

A cloudy day, or a little sunshine, have as great an influence on many constitutions as the most real blessings or misfortunes . . . Joseph Addison

## QUESTION BOX



**ANSWER:** Social security numbers are being used with increasing frequency on such items as tax forms, savings bonds and other securities, Veterans Administration records, military service records, voter registration lists, credit cards, academic records, insurance policies, drivers' licenses and numerous other forms.

There is no legal prohibition on the use of social security numbers for employee identification. Social security numbers are required in reporting employees' income to the Internal Revenue Service, as well as reporting Old Age and Survivor's Insurance money withheld from employees' checks. Many businesses and industries, including a number of nuclear facilities other than in Union Carbide, also use the social security number as a means of identification.

The present badging system in the Nuclear Division has resulted in duplicate serial numbers at each of the four facilities. Transfers from one facility to another involve new badge numbers, new badge photos, and changing numerous important employee benefit records. Most of this work involved in transfers will be eliminated when we have converted our record system from installation badge numbers to social security numbers.

Naturally, if legislation were passed limiting the use of social security numbers, the Nuclear Division would comply with all requirements.

**QUESTION:** Does any other plant in the Nuclear Division have their own newsletter, other than ORNL?

**ANSWER:** No.

## Calendar of EVENTS

### TECHNICAL

#### August 5

ORNL Summer Energy Series: "Basic Research for Energy," A. Zucker. Central Auditorium, Building 4500N, 3:30 p.m.

#### August 12

Biomedical Graduate School Seminar: "The Influence of Copper upon the Maturation of Dermal Collagen *in vitro*," Raymond L. Hayes, University of Pittsburgh. Tower I Conference Room, Building 9207, Y-12, 3 p.m.

ORNL Summer Energy Series: "Solar Energy," D. M. Eissenberg. Central Auditorium, Building 4500N, 3:30 p.m.

#### August 14

Metals and Ceramics Division Seminar: "Structural Aspects of Nonstoichiometry of Boron Carbides," H. L. Yakel. East Auditorium, Building 4500N, 3 p.m.

### 55 CENT DIVIDEND DECLARED

The 229th consecutive dividend has been declared by Union Carbide Corporation. The amount of 55 cents a share on a share of outstanding capital stock is payable September 3, to stockholders on record at the close of business August 2.

## Stretching food dollar

(Continued from page 2)

foods and nutrition, and also did graduate work at the University of California at Los Angeles.

A variety of jobs, all in the food business, kept Mrs. Sluder busy until she and her husband Howard (he is in the Contract Compliance Office of the Atomic Energy Commission's Oak Ridge Operations) moved to Oak Ridge in 1970. These jobs included research on the peach and the potato, as well as managing cafeterias at the Universities of Texas, Idaho and Colorado, where hungry collegians devoured three big meals a day, dietary work at the Idaho State Tubercu-

losis Hospital, Idaho Falls High School cafeteria management, Grand Junction, Colo., St. Mary's Hospital administrator of dietetics, and for two and one-half years administering the luncheon program for the State of Idaho. She also had a brief stint managing a tea room for a department store and, during World War II, taught school for a short time.

### Services change

The Sluders are ardent rock-hounds and have been planning and practicing for a long time expeditions into the nearby hills to collect various minerals and rocks.

They live at 127 Netherlands Road, with their son, Peter. Their daughter, Susan, is attending Transylvania College.

Ceramics and painting also occupy part of Mrs. Sluder's time.

"Food service has changed radically," she points out, "with the radar range and quick frozen things abounding in the market. But the old attitudes on food don't change much. We still try to get the best meal possible from our dollar," she states, "and in these times, it's not easy. Stretching the food dollar is one of our big challenges."

Mrs. Sluder also believes that the lunch period should be a happy time. "We are a service organization, and in addition to serving the best possible meal for the least cost, we are obligated to be as pleasant to our customers as we can," she added.

### Vending machine care

Mrs. Sluder's husband travels a good deal in the area on his job, and the two are always looking for new places to eat in the Virginia-Kentucky-Tennessee area. They'll exchange lists of good places to eat with anyone.

In addition to their listed duties, all three cafeteria managers coordinate many of the activities associated with vending machines located throughout the plants.

General supervision of the cafeterias in the three plants falls under the aegis of John C. Dougherty, a nine-year veteran of ORNL.



**RECENT NUPTIALS** — Jean Elizabeth Fronstrom and Robert Stewart Erby were married recently at the Robertsville Baptist Church. The bridegroom, who has been a co-op at the Oak Ridge Gaseous Diffusion Plant, begins full-time employment there this month.



### UNION CARBIDE CORPORATION

NUCLEAR DIVISION

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